



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/592,775	06/13/2000	Israel Hilcrist	0544MH-35309	5589

53184 7590 11/15/2006
i2 TECHNOLOGIES US, INC.
ONE i2 PLACE, 11701 LUNA ROAD
DALLAS, TX 75234

EXAMINER

BULLOCK JR, LEWIS ALEXANDER

ART UNIT PAPER NUMBER

2195

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/592,775

Applicant(s)

HILERIO ET AL.

Examiner

Lewis A. Bullock, Jr.

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over SHOHAM (U.S. Patent 6,285,989) in view of Active and Real-time Functionalities for Electronic Brokerage Design” by M. BECK et al. and “Active Database Systems” by PATON et al.

As to claim 1, SHOHAM teaches a computer implemented communications exchange using one or more computer systems for facilitating communication among a plurality of supply chain participants in an electronic marketplace to facilitate one or more marketplace transactions (market entities performing trading primitives) (col. 6, lines 60 – col. 7, lines 3), comprising: a communication interface (interface) operable to send and receive messages (requests) among the plurality of supply chain participants in the electronic marketplace to facilitate one or more marketplace transactions (col. 12, lines 38-54); an event container (transaction monitor) connected to the communication interface (interface) and operable to receive messages (requests) from the communication interface as events (market events), one or more of the messages and their corresponding events each being associated with one or more marketplace transactions (col. 12, lines 38-54); a condition container (database) connected to the

Art Unit: 2195

event container (transaction monitor; via the services), the condition container comprising a plurality of condition instances (rules / constraints / preconditions) each specifying one or more rules for determining whether to initiate an action defined by an action instance (service) associated with the condition instance (wherein the service considers the rules / constraints / preconditions in determining whether an action is performed), a particular condition instance specifying whether to initiate the action defined in the associated action instance to facilitate one or more marketplace transactions in the electronic marketplace (col. 12, lines 38-54; col. 13, lines 33-54; fig. 5; col. 8, lines 50 – col. 9, lines 1; col. 9, lines 13-19); and an action container (DLL modules) connected to the condition container (database) and containing a plurality of action instances (services), each action instance associated with one or more of the condition instances (rules and constraints / preconditions) and defining an action (service) operable to, when initiated, facilitate one or more marketplace transactions in the electronic marketplace (col. 13, lines 6-23); when one or more events (market events) received by the event container from the communication interface (interface) are determined to match a particular condition instance (rule / constraint), the action, defined in the action instance associated with the particular condition instance (service to be performed due to the rule / constraint / preconditions), is initiated by the communications exchange to facilitate the one or more marketplace transactions associated with the one or more events (events) determined to match the particular condition instance (rules / constraint / preconditions) (col. 13, lines 24-54; col. 9, lines 14-19). However, SHOHAM does not teach that the rules include predicates for

determining whether they match and the rule requires the presence of a plurality of specified events and the events are stored until the condition is initiated or expiration of the event.

BECK teaches a brokerage system (pg. 1, "Electronic brokerages facilitate on-line buying and selling of goods and services.") wherein the rules are event-condition-action rules (pg. 1, Abstract, "User preferences can be conveniently captured as Event-Condition-Action rules.") such that the conditions have predicates and if an event matches the predicate of the condition the action is invoked (pg. 2, E-Brokerage Design, "Each rule consists of three parts: Event, Condition, and Action (ECA). When the specified event occurs, and if the condition (which is a predicate or database query) is true, then the specified action (s) is (are) executed in a timely manner."). BECK also teaches wherein at least one of the condition instances (conditions / rules) specifies at least one rule requiring the presence of a specified plurality of specified events (via a complex event) in the event container (stored events) for initiating a specified one of the actions (actions) wherein each specified events is stored until the first condition initiates the event and wherein the most relevant events are maintained (via efficient algorithms to detect events and timing violations by maintaining a history of event instances and attributes in high memory to detect events at the earliest such that the log must include only relevant history for brevity) (pg. 2, E-Brokerage Design, "Compilation methods described in the real-time literature are used to detect complex events at the earliest."; pg. 3, Rules, Events, and Conditions, "Complex events may be formed by applying operators such as conjunction, disjunction or sequence to other events.; pg. 4, Event

Art Unit: 2195

Monitoring, "Complex events are compiled to determine the associated simple events; pg. 5, Java Event Monitor, "Events may be detected directly, or complex events may be detected by the event monitor, and notification of events of interest are pushed to the subscribers."; pg. 4, Event Monitoring, "The Event Monitor also...The log must include only relevant history for brevity."). Therefore, it would be obvious to one skilled in the art at the time of the invention to combine the teachings of SHOHAM with the teachings of BECK in order to facilitate the use of complex events in e-brokerages (pg. 1-2).

PATON teaches when parts of a composite event are detected and stored an indication of the undetected part of the event is recorded until either the event does take place or the time span within which the event is to be detected expires (pg. 85, column 1 last paragraph to column two, first paragraph). PATON also teaches that for composite events, whose components are primitive events that have originated within the boundaries of a single transaction, the end of the transaction marks the end of the monitoring period and all partially composed events can be removed (subsequent paragraph). It would be obvious based on the cited portions that PATON teaches each event being defined to expire within an event period if unused and is removed from storage upon the condition initiating the specified event or expiration of the specified event, e.g. expiration of the time period. Therefore, it would be obvious to one of ordinary skill in the art to combine the teachings of SHOHAM with the teachings of BECK and PATON in order to facilitate event detection (pg. 85).

As to claim 2, SHOHAM teaches defining a market that considers time when determining whether to initiate a trading primitive (col. 6, lines 52-67; col. 8, lines 50-58; col. 8, line 64 - col. 9, line 1). It is obvious to one skilled in the art that since the transaction monitor receives the event and determines what services to invoke based on the event under certain conditions and that the conditions are based on an absolute time-line that there must be a timer operable to generate events related to time to process the steps by the required time.

As to claim 3, SHOHAM teaches the steps of interpret the condition instances at runtime (via the services using the rules and constraints to determine the manner in which a particular request/event is to be handled for a specific market); and change the condition instances in response to user input while the exchange is operating without disrupting processing of events (col. 13, lines 45-54; col. 15, lines 21-24).

As to claim 4, SHOHAM teaches wherein at least one of the pluralities of action instances (services) is operable to generate a new event (event) when the action defined by the action instance is initiated, the new event being sent to the event container (transaction monitor) (col. 13, lines 24-32).

As to claim 13, SHOHAM teaches the messages sent and received by the communications interface (interface) comprise one or more of: a request for a quote; a

quote; shipping information; product availability information; delivery information; and a firm order (col. 12, lines 38-54).

As to claim 14, SHOHAM teaches the electronic marketplace comprises one or more of: customers; resellers; suppliers; manufacturers; and logistics providers (col. 7, lines 1-3).

As to claim 15, SHOHAM teaches the steps of: receiving definitions of condition instances from supply chain participants of the exchange (VIA defining the market) (col. 7, lines 15 – col. 8, line 45); and associate the definitions of condition instances with the condition container (rules and constraints database) such that the supply chain participants of the exchange may delegate certain decisions to the exchange (via the actions using the conditions to handle a particular request/event with a service based on the rules and constraints) (col. 13, lines 33-48).

As to claim 16, SHOHAM teaches one or more of the messages are initiated by a supply chain participant (col. 7, lines 1-3).

As to claim 17, SHOHAM teaches one or more of the messages (events / requests) are initiated by a particular action contained in the action container (services) (col. 13, lines 24-32).

As to claim 18, SHOHAM teaches in response to input from a user, the communications exchange is operable to dynamically modify (via primitives) a specified condition in the condition container (market rules) (col. 7, lines 15 – col. 8, line 45) independent of events in the event container and actions in the action container; and in response to input from the user the communications exchange is operable to dynamically modify (via primitives) a specified action (via modifying the market) in the action container (services) independent of events in the event container and conditions in the condition container (VIA the transaction monitor being insulated from the details of the specific market and by maintaining the rules and constraints in a database along with partitioning of services into general and market specific allows greater flexibility in creating a new market and in modifying an existing market) (col. 13, lines 6-54; col. 12, lines 54-65).

As to claims 5-8 and 19-23, reference is made to a system that corresponds to the exchange of claims 1-4 and 13-18 and is therefore met by the rejection of claims 1-4 and 13-18 above.

As to claims 9-12 and 24-29, reference is made to a method that corresponds to the system of claims 1-4 and 13-18 and is therefore met by the rejection of claims 1-4 and 13-18 above.

Response to Arguments

Art Unit: 2195

3. Applicant's arguments filed August 29, 2006 have been fully considered but they are not persuasive. Applicant argues that Shoham has nothing to do with independent claim 1 limitations regarding a "computer-implemented communications exchange using one or more computer systems for facilitating communication among a plurality of supply chain participants in an electronic marketplace to facilitate one or more marketplace transactions. In particular, the examiner equates the "plurality of supply chain participants" recited in claim 1 with the market entities. Applicant further states that the entities are associated with an auction and are not the plurality of supply chain participants, which are participants in an electronic marketplace. The examiner disagrees. First, an on-line auction is an electronic marketplace. An auction is the buying and selling of goods and/or services among buyers and sellers, therefore the buyer and seller are participants in a marketplace. The summary of the invention states the invention is a method and apparatus for designing and deploying an interactive, real-time, universal on-line trading market system serving traders communicating via the Internet (col. 4, lines 36-40). Therefore, the apparatus is a computer-implemented communications exchange that facilitates communication among a plurality of supply chain participants to facilitate one or more marketplace transactions.

Applicant then states that Shoham has nothing to do with the limitation regarding a communication interface operable to send and receive messages among the plurality of supply chain participants in the electronic marketplace. The examiner disagrees. Shoham states that the invention operates on a wide range of hardware, from single-user personal computers to integrated, client/server based platforms; the system of the

Art Unit: 2195

present invention is well suited to a small number of users and to a market with thousands of users (col. 11, lines 24-35). Figure 4 further supports this notion wherein there exists a plurality of clients (traders) that interact with a transaction monitor to perform a market operation. Market operations relate to bidding and selling of goods. In order to bid and sell a good, communication would have to be made between the buyer and seller. Therefore, the interface of Shoham that sends the events/messages to the transaction monitor is operable to send and receive messages among the plurality of supply chain participants.

Applicant then argues that Shoham has nothing to do with claim 1 limitation regarding an "event container connected to the communication interface and operable to receive messages from the communication interface as events associated with one or more marketplace transactions. Applicant states that the examiner's equation of the transaction monitor that receives the requests / events and activates a service is not proper. The examiner disagrees. Shoham teaches the transaction monitor receives requests from a client and other system event and these requests may represent the invocation of particular functions made available by the GUI wherein the client request typically correspond to a request for a specific market related action or query such as submittal or confirmation of a bid, a request for information related to traders or goods, or a request for market or trader specific constraints (col. 12, lines 38-54). The cited claim limitation at best mentions that the container is operable to receive messages from the interface as events wherein the events are associated with one or more

Art Unit: 2195

marketplace transactions. Therefore, as outlined above, the teachings of Shoham adequately meet the claim limitations as presented.

Applicant then argues that Shoham has nothing to do with the claim 1 limitations regarding a "condition container connected to the event container, comprising a plurality of condition instances each specifying one or more rules for determining whether to initiate an action defined by an action instance associated with the condition instance. The examiner disagrees. Shoham teaches that the system comprises a plurality of particular market and system conditions embodied as rules or constraints in a database. The rules and constraints are used to determine the manner in which a particular request/event is to be handled or serviced (col. 13, lines 13-53). The cited claim limitation at best mentions a condition container comprising a plurality of condition instances specifying one or more rules for determining whether to initiate an action defined by an action instance associated with the condition instance. Based on the teachings of Shoham provided above, Shoham teaches the cited a condition container (database) comprising a plurality of condition instances (rules / constraints) specifying one or more rules for determining whether to initiate an action (actual service operation / instruction) defined by an action instance (service) associated with the condition instance and therefore adequately meets the claim limitations as presented.

Applicant then argues that Shoham has nothing to do with independent claim 1 limitations regarding an "action container containing a plurality of action instances." The examiner disagrees. Shoham teaches the market specific services are implemented as DLL modules (col. 13, lines 13-32). As outlined above, messages and events inputted

Art Unit: 2195

into the system are determined to invoke certain actions / services. The cited claim limitation at best mentions an action container containing a plurality of action instances, each action instance associated with or more condition instances and defining an action to initiate / facilitate marketplace transactions. Shoham's teaching of DLL modules (action containers) that have market specific services (action instances) that perform marketplace transactions (bid functions, etc.) meets this limitation and therefore adequately meets the claim limitations as presented.

Applicant states that the Office Action acknowledges that Shoham does not disclose the emphasized limitations above. The examiner disagrees. Shoham teaches rules but does not state that the rules have predicates or the events can expire. Applicant then argues that Beck or Paton have nothing to do with the limitations that were previously associated with Shoham. The examiner states in response to these arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Shoham teaches the majority of the invention as outlined above. Shoham is an event – condition – action system in relating to a marketplace environment wherein events received are matched to conditions registered, to invoke actions registered. Both Beck and Paton are also event – condition – action systems in relation to a marketplace environment wherein events received are matched to conditions registered, to invoke actions registered. Beck further details the conditions / rules registered having predicates that are matched

Art Unit: 2195

against received events to invoke an action. Paton further details the events are stored and are removed when they expire. Therefore, both Beck and Paton expand on the event – condition – action system of Shoham to add more features.

Applicant then argues that the office action has failed to properly establish a prima facie case of obviousness based on the proposed combination. The examiner disagrees. As stated above, Shoham teaches the majority of the invention as an event – condition – action system in relating to handling and execution of marketplace events wherein events received are matched to conditions registered, to invoke actions registered. Both Beck and Paton are also event – condition – action systems in relation to a marketplace environment wherein events received are matched to conditions registered, to invoke actions registered. Beck further details the conditions / rules registered having predicates that are matched against received events to invoke an action and that its electronic brokerages support timeliness requirements and allow users to express complex preferences (abstract; pg. 2, paragraph 1 and 5 (second indentation)). Paton further details the composite events are detected, stored and removed when they expire in order to monitoring / detect events. Therefore, both Beck and Paton expand on the event – condition – action system of Shoham to add more features to Shoham and are properly combined and motivated as outlined above. Since, the motivation is taken from the references, the requirements for a prima facie case of obviousness is met.

Art Unit: 2195

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

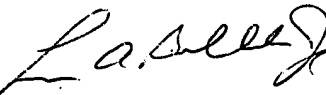
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (571) 272-3759. The examiner can normally be reached on Monday-Friday, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2195

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 10, 2006


LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER